Abstracts

Conductor-Backed Coplanar Waveguide Resonators of YBa/sub 2/Cu/sub 3/O/sub 7-delta/ on LaAlO/sub 3/

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Conductor-backed coplanar waveguide (CBCPW) resonators operating at 10.8 GHz have been fabricated from laser ablated and off-axis magnetron sputtered YBa/sub 2/Cu/sub 3/O/sub 7-delta/ (YBCO) high-temperature superconducting (HTS) thin films on LaAlO/sub 3/. These resonators were tested in the temperature range from 14 to 92 K. The unloaded quality factor (Q/sub 0/) at 77 K of the HTS CBCPW resonators was 3 to 4 times that of a similar gold (Au) resonator. To our knowledge, these results represent the first reported measurements of HTS-based CBCPW resonators.

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